

DEREK ALLEN HAM

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EDUCATION

- 2015 **Massachusetts Institute of Technology**
PhD Design Computation
- 2003 **Harvard University**
Masters of Architecture
- 2001 **Hampton University**
Bachelors of Architecture
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TEACHING/INSTRUCTION EXPERIENCE

- Spring 2015 **Rhode Island School of Design**
Rank: Lecturer
- Fall 2014 **Harvard University Graduate School of Design**
Rank: Instructor
- 2011-Present **MIT School of Architecture & Planning (Design & Computation)**
Rank: Instructor/ Teaching Assistant/ Research Assistant
- 2012-2014 **Harvard University Graduate School of Education**
Rank: Teaching Fellow for T402 Group Learning
- 2013- 2014 **NuVu Studio (High School Technology and Design Program)**
Rank: Technology and Design Instructor for seasonal winter and summer classes
- 2007- 2010 **Florida A&M School of Architecture and Engineering Technology**
Rank: Assistant Professor (Tenure Track); Technology Committee Chair
- 2008-2010 **Tallahassee Community College, Division of Technology and Professional Programs**
Rank: Adjunct Professor
Teaching: Computer Modeling & Animation; Introduction to AutoCAD
- 2004-2007 **Hampton University School of Engineering and Technology**
Rank: Assistant Professor
Appointed Positions: AIAS faculty advisor, ACSA faculty representative, University Honor's College Committee, School of Engineering and Technology Committee on Admissions
- Summer 04-08 **Pennsylvania Governor School of Art**
Rank: Design Instructor
- 2003- 2004 **Philadelphia Charter High School for Architecture and Design**
Rank: Design Instructor, Computer Lab Instructor
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PROFESSIONAL EXPERIENCE

- Summer 2013 **MIT Office of Engineering Outreach Programs (OEOP)**
STEM Summer Program Director
The STEM Program is a year-round academic enrichment opportunity provided free of charge to talented Boston area middle school students.

- 2012 –2013 **Digi-Block**
Mathematics Educational Game Designer /Storyboard Artist/ Visualization Designer
Digi-Block is a math educational product company.
- 2011 – 2012 **MIT Media Lab (Changing Places Research Group)**
Design Collaborator/ Computer Animation Programmer/Film Editor
- Winter 2012 **Levant Power**
Freelance Visualization and Animation Designer
- 2005 – 2006 **AGWA Architects**
Intern Architect
- 5/2002 -1/2003 **Mostue and Associates**
Designer II
- 5/2001 - 8/2001 **Clark Nexsen Architecture and Engineering**
Intern
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FELLOWSHIPS & AWARDS

- 2014 **Leon Hyzen Fellowship**
Massachusetts Institute of Technology
- 2014 **Georgia Tech. Focus Fellow**
Georgia Institute of Technology
- 2011-14 **Harvey Fellow**
Mustard Seed Foundation
- 2010-11 **MIT Presidential Fellowship**
Massachusetts Institute of Technology
- 2007 **Provost Award for Innovation in Teaching**
Hampton University
- 2001 **Alpha Rho Chi Bronze Medal**
Hampton University
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SELECTED PUBLICATIONS

- Ham, D. (2015) Pathways to Neverland: How Play Can Teach Us New Ways to Calculate. In M. Jackson, G. Marinic, & L Kirkland (Eds.) *Proceedings of the 31st National Conference on the Beginning Design Student*. University of Houston College of Architecture. *(Forthcoming)
 - Ham, D. (2014) Playful Calculation. In N. Lemon (Ed.), *Revolutionizing Arts Education in K-12 Classrooms Through Technology Integration*. IGI Global. *(Forthcoming)
 - Ham, D. (2013) Restructuring Beginning Design Curriculums with Visual Calculation. In J. A. Botia, & D. Charitos (Eds.), *Ambient Intelligence and Smart Environments: Vol. 17. Workshop Proceedings of the 9th International Conference of Intelligent Environments* (pp. 588-597). IOS Press.
 - Ham, D. (2009) Regulating Spatial Entropy in Architecture Design. In B.B. Bolak, & S. Lökçe (Eds.), *Architectural Education Forum IV: Flexibility in Architecture Education Conference Proceedings* (pp. 88-89). Chamber of Architects Turkey Publications.
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CONFERENCES, TALKS, & WORKSHOPS

2014 **MIT Museum Second Fridays**

Seminar Talk

As a speaker for the Second Friday Lecture series I was a panel speaker under the theme "Making Time for Play." I talked about the process of designing and building games as well as their importance to education and informal learning.

2014 **Harvard Franklin I-O STEM Program Training for Middle School Teachers**

Teacher Training Seminars

As a teacher trainer I conducted seminars on integrating the Arts into STEM curriculums; STEAM. The training seminars introduced these K12 teachers to project based learning and abstract calculation.

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2014 **SXSWedu 2014**

Conference Talk

At the 2014 SXSWedu Conference I presented in their "Playground" session talks. The talk discussed the relationship between Play, Calculation, and Design. "Play" is an essential component to any creative endeavor. Likewise, algorithmic thinking and calculation are core activities to any design professional.

2013 **Bridging the Gap 2013: NCABR STEM Education Conference**

Paper Presentation

Bridging the Gap is an annual conference whose goal is to strengthen K-16 STEM education throughout North Carolina. It brings together educators, business leaders, government officials and others who play a role in STEM education to share ideas and resources. The paper "*Enhancing Innovation in STEM by Exploring Aesthetics*" presented a model for educators of STEM courses to integrate aesthetic explorations in their curriculums.

2012-14 **LEFT- Learning Environments for Tomorrow**

Annual Facilitator

As a lead facilitator for this innovative symposium I helped facilitate workshops that brought together educators and architects to discuss the future of educational environments. The conference is cosponsored by Harvard Graduate School of Education and Harvard Graduate School of Design.

2012 **MIT 100K Design Charrette**

Co-Chair

I served as the co-chair of the first ever Design Charrette for the MIT 100K Entrepreneurship Competition. The charrette brought together local designers and participants of the 100K competition to work out graphic, visual, and sensory design components of their entries in a short concentrated area of time.

2011 **Upward Bound Storytelling and Animation Workshop**

Workshop Instructor

I taught a four hour workshop over four days to minority Boston area high school students on the technique and artistry of animated storytelling. Students learned basic techniques of storytelling, drawing, and character development.

2010 **HBCU Design Education Symposium**

This event was hosted by Howard University's School of Architecture and was the first annual gathering of Schools of Architecture from the five Historically Black Colleges and Universities with these programs. I spoke on the evolution of Digital Design Practices.

2009 **2nd Ubiquitous Learning Conference**

Paper Presentation

As a presenter I brought my research conducted with students with disabilities, "Design Hands Free." This conference is affiliated with the International Conference on Learning and the Learning Institute at the University of Illinois at Urban Champaign.

2009 **Able Trust Florida High School/High Tech Annual Training**

Presenter

I participated on the Employer Panel Discussion presenting my summer research to educators who work with youth with disabilities. My project "Designing Hands Free" was an exploration in creating a design curriculum that uses voice activation and computer modeling with Google Sketch-up as a means to teach beginning design, to students with limited mobility.

2009 **HBCU Design Leadership Project**

Presenter

This event was hosted by Mabel O. Wilson of Columbia University and held at Tuskegee University School of Architecture. This program brought together minority leaders from within the design community to share ideas to students within Historically Black Colleges and Universities.

2008 **GSD SoCA Future Present Symposium**

Conference Presentation

I gave a presentation entitled "Altruism vs Egoism: The True Nature of Architecture."

2008 **National Association of African American Studies Conference**

Paper Presentation

I delivered the paper at the NAAS Conference in Baton Rouge, LA entitled *The Acquisition of Grey*. The Abstract was juried and selected by a blind paper review.

2007 **2007 ACSA Annual Meeting: Fresh Air**

Conference Panel Moderator

I served as the moderator for the panel *CHAD: A Model for Architecture in Secondary Education* at the ACSA 95th Annual Meeting. Panelist included Jenifer Baker, Don Matzkin, and Denise Scott Brown.

07;08 **National Organization of Minority Architects (NOMA)**

I was able to present at the 36th Annual National Meeting at the Hyatt Regency in Washington, DC and at the 35th Annual National Meeting at the Disney Contemporary Resort in Orlando Florida.

Design Studio Juries & Reviews

(Schools listed in alphabetical order)

- **2014 Virginia Prize for Design Research & Scholarship** Juror
- **Boston Architectural College** Studio Juror
- **Florida A&M School of Architecture** Studio Juror
- **Georgia Tech School of Architecture** Studio Juror
- **Hampton University Department of Architecture** Studio Juror
- **Harvard University Graduate School of Design** Studio Juror
- **Howard University School of Architecture** Studio Juror
- **Massachusetts Institute of Technology School of Architecture and Planning** Studio Juror
- **Philadelphia University College of Architecture** Studio Juror
- **Tuskegee University School of Architecture** Studio Juror